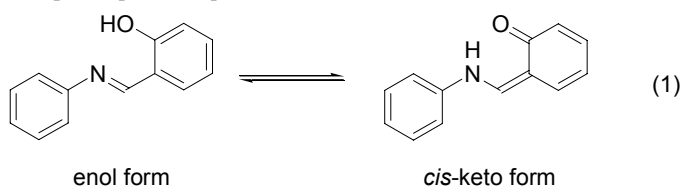


Role of Self-Association in Proton Tautomerism of Salicylideneanilines

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Proton tautomerism is a general phenomenon in organic molecules and plays a vital role in many fields of chemistry and biochemistry. The tautomerism of salicylideneanilines [eq(1)] has attracted a considerable attention because it is closely related to thermo- and photochromism. Salicylideneanilines greatly favor the enol form over the *cis*-keto form in the gas phase. We demonstrate here that the instability of the *cis*-keto form is substantially reduced by intermolecular hydrogen bonding and also by self-association, on the basis of our variable temperature X-ray crystallographic and UV-vis absorption spectroscopic studies.[1]-[3].



[1] Ogawa K., Kasahara Y., Ohtani Y., Harada J., *J. Am. Chem. Soc.*, 1998, **120**, 7107. [2] Ogawa K., Harada J., Fujiwara T., Yoshida S., *J. Phys. Chem. A*, 2001, **105**, 3425. [3] Fujiwara T., Harada J., Ogawa K., *J. Phys. Chem. B*, 2004, **108**, 4035.

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